Figure 1

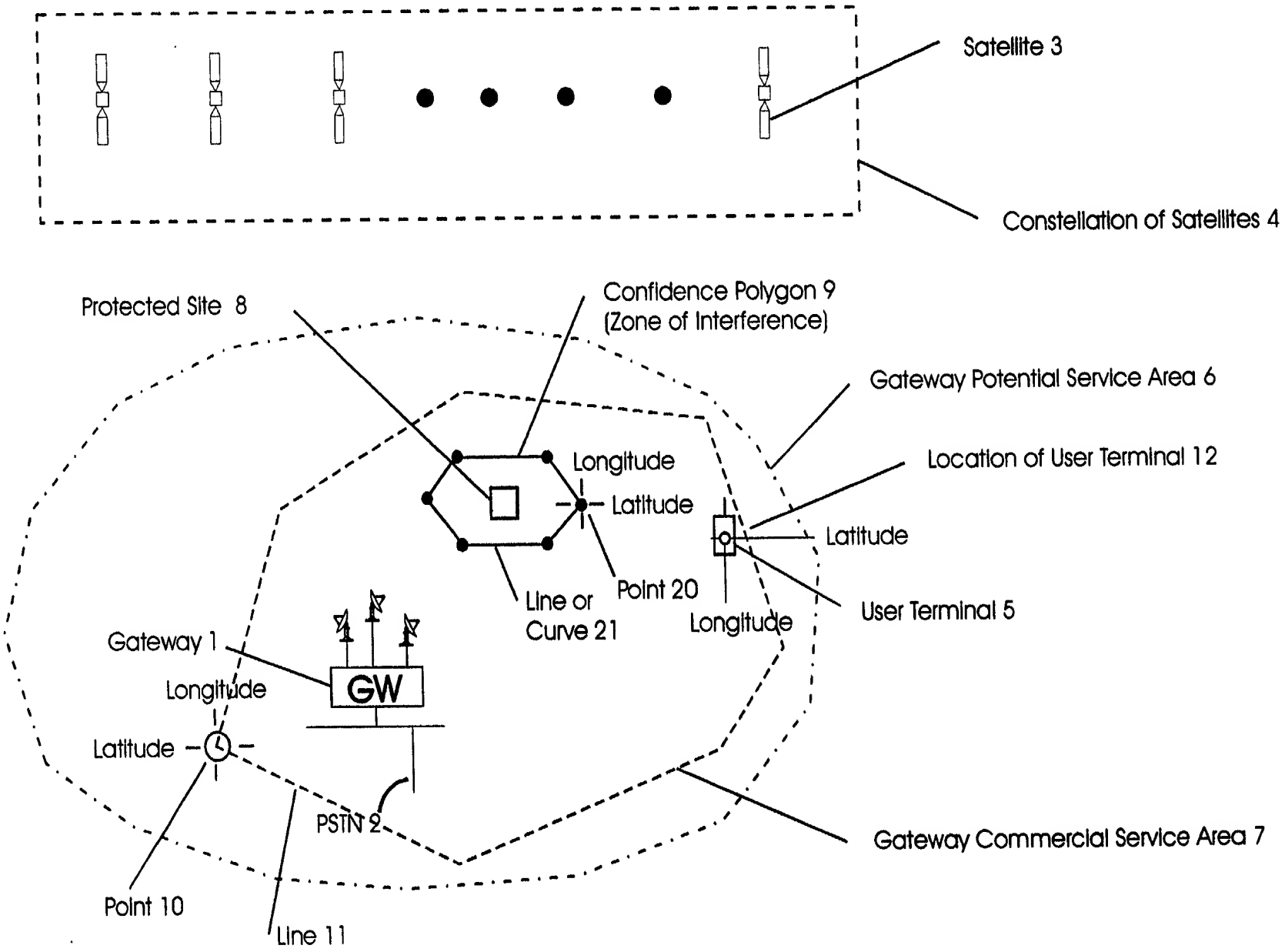

Satellite 3
Constellation of Satellites 4
Protected Site 8
Confidence Polygon 9
(Zone of Interference)
Gateway Potential Service Area 6
Location of User Terminal 12
Longitude
Latitude
Latitude
Point 20
Line or
Curve 21
Longitude
User Terminal 5
Gateway 1
GW
Longitude
Latitude
PSTN 2
Gateway Commercial Service Area 7
Point 10
Line 11

Figure 2

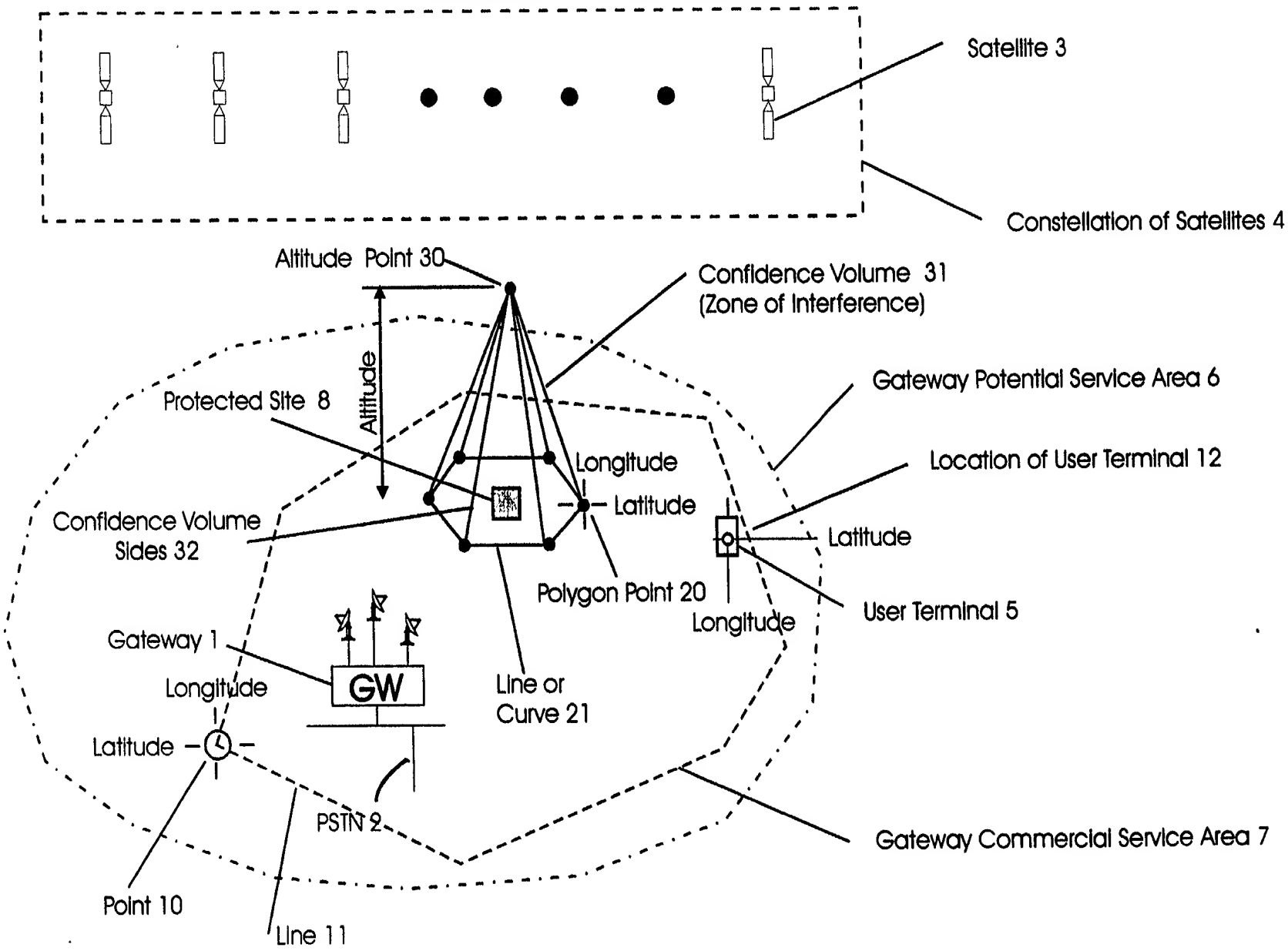

Satellite 3
Constellation of Satellites 4
Altitude Point 30
Confidence Volume 31
(Zone of Interference)
Gateway Potential Service Area 6
Protected Site 8
Altitude
Longitude
Location of User Terminal 12
Latitude
Confidence Volume
Sides 32
Latitude
Polygon Point 20
User Terminal 5
Longitude
Gateway 1
GW
Longitude
Line or
Curve 21
Latitude
PSTN 2
Gateway Commercial Service Area 7
Point 10
Line 11

Figure 3

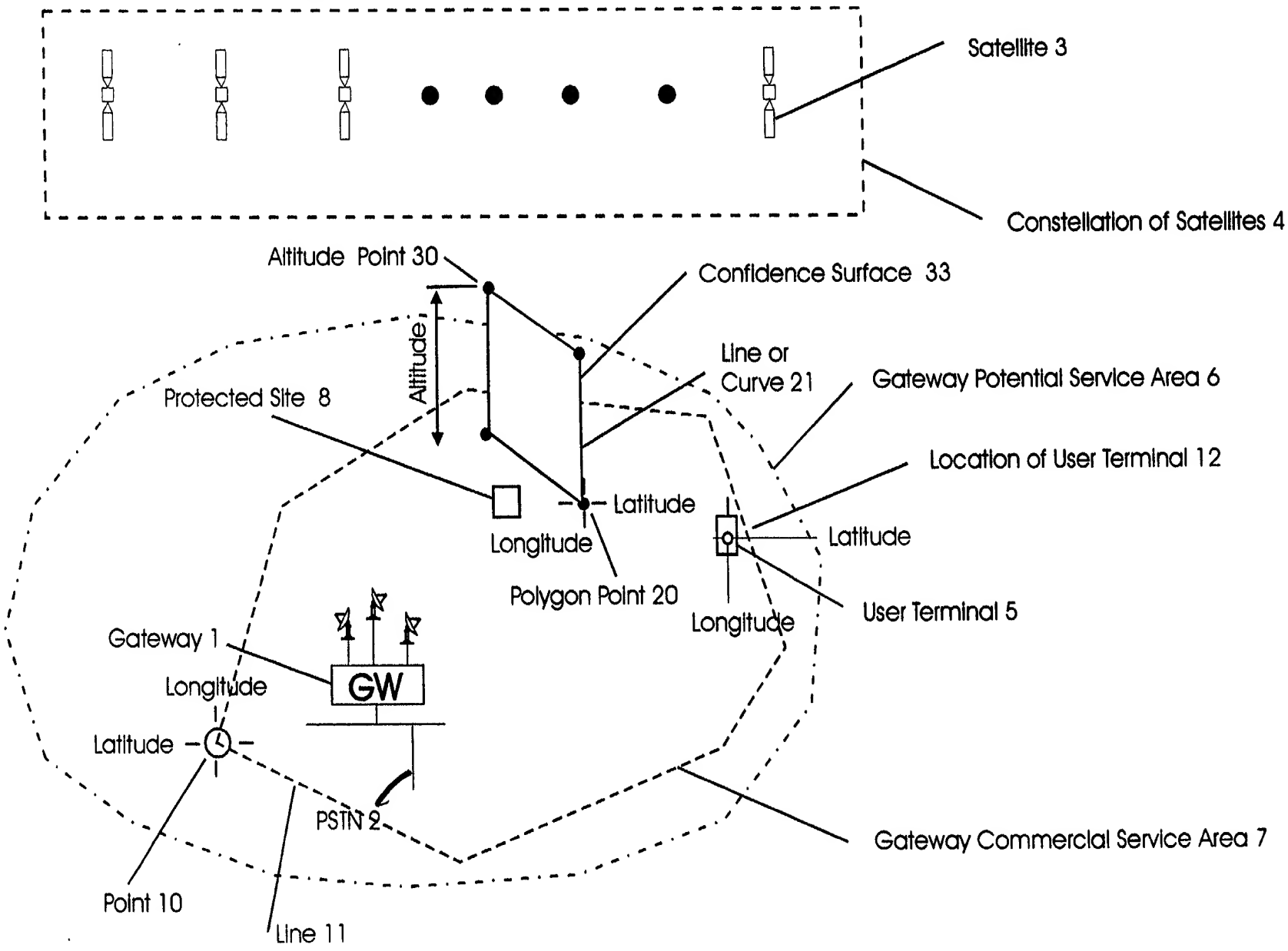

Satellite 3
Constellation of Satellites 4
Altitude Point 30
Confidence Surface 33
Altitude
Line or
Curve 21
Gateway Potential Service Area 6
Protected Site 8
Location of User Terminal 12
Latitude
Longitude
Latitude
Polygon Point 20
Longitude
User Terminal 5
Gateway 1
GW
Longitude
Latitude
PSTN 2
Gateway Commercial Service Area 7
Point 10
Line 11

Figure 4

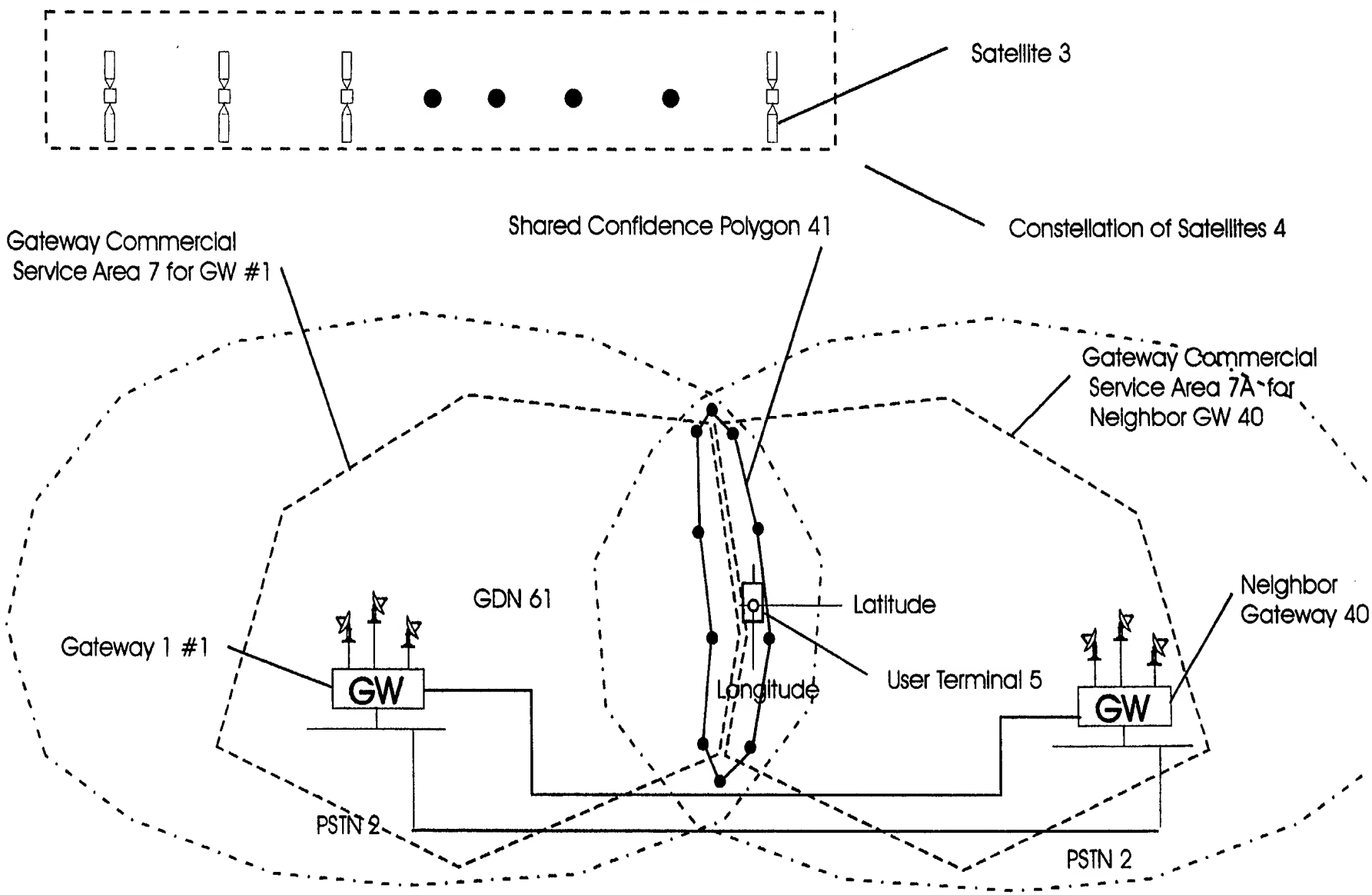

Satellite 3
Constellation of Satellites 4
Shared Confidence Polygon 41
Gateway Commercial Service Area 7 for GW #1
Gateway Commercial Service Area 7A for Neighbor GW 40
GDN 61
Gateway 1 #1
GW
Latitude
Longitude
User Terminal 5
Neighbor Gateway 40
GW
PSTN 2
PSTN 2

Figure 5

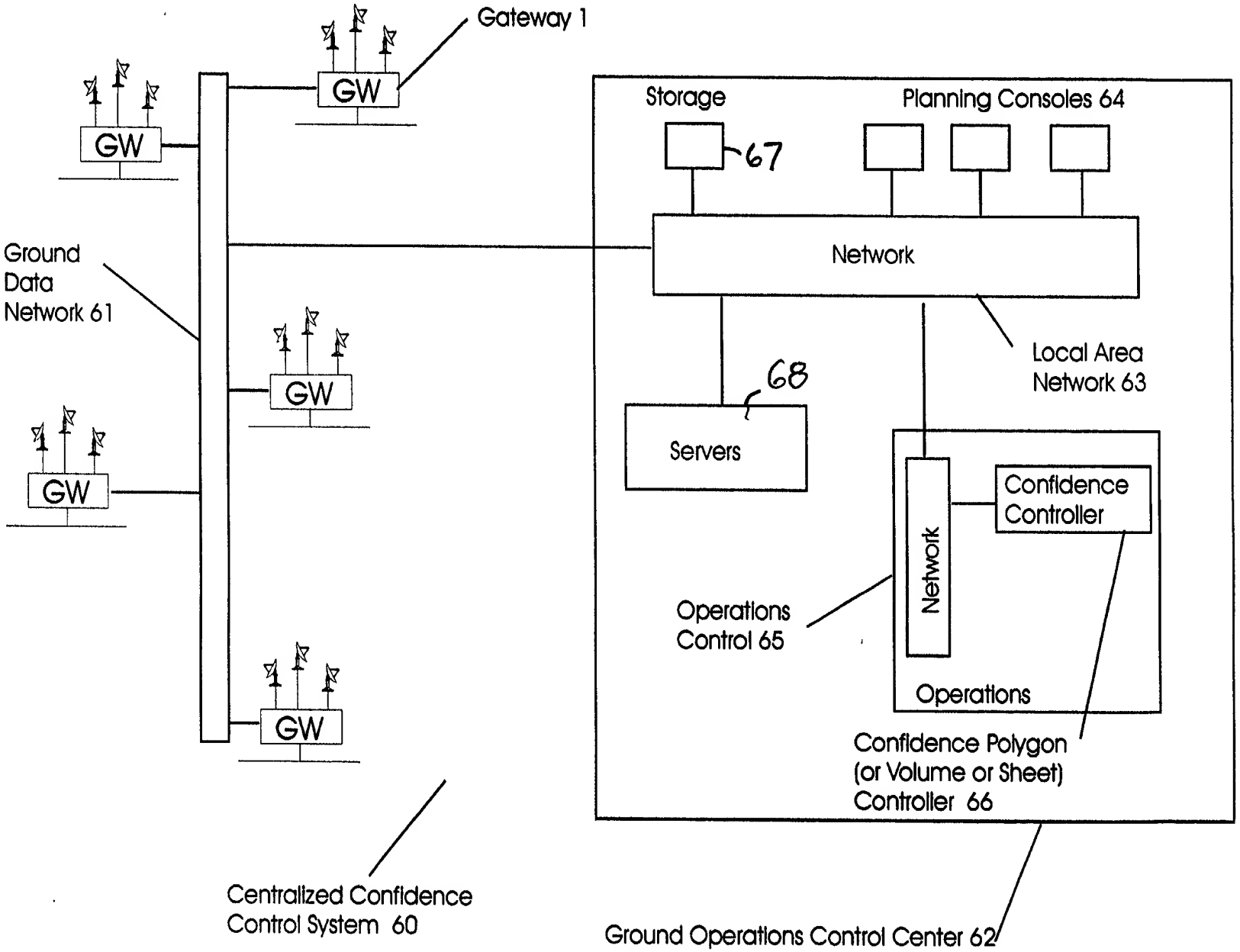
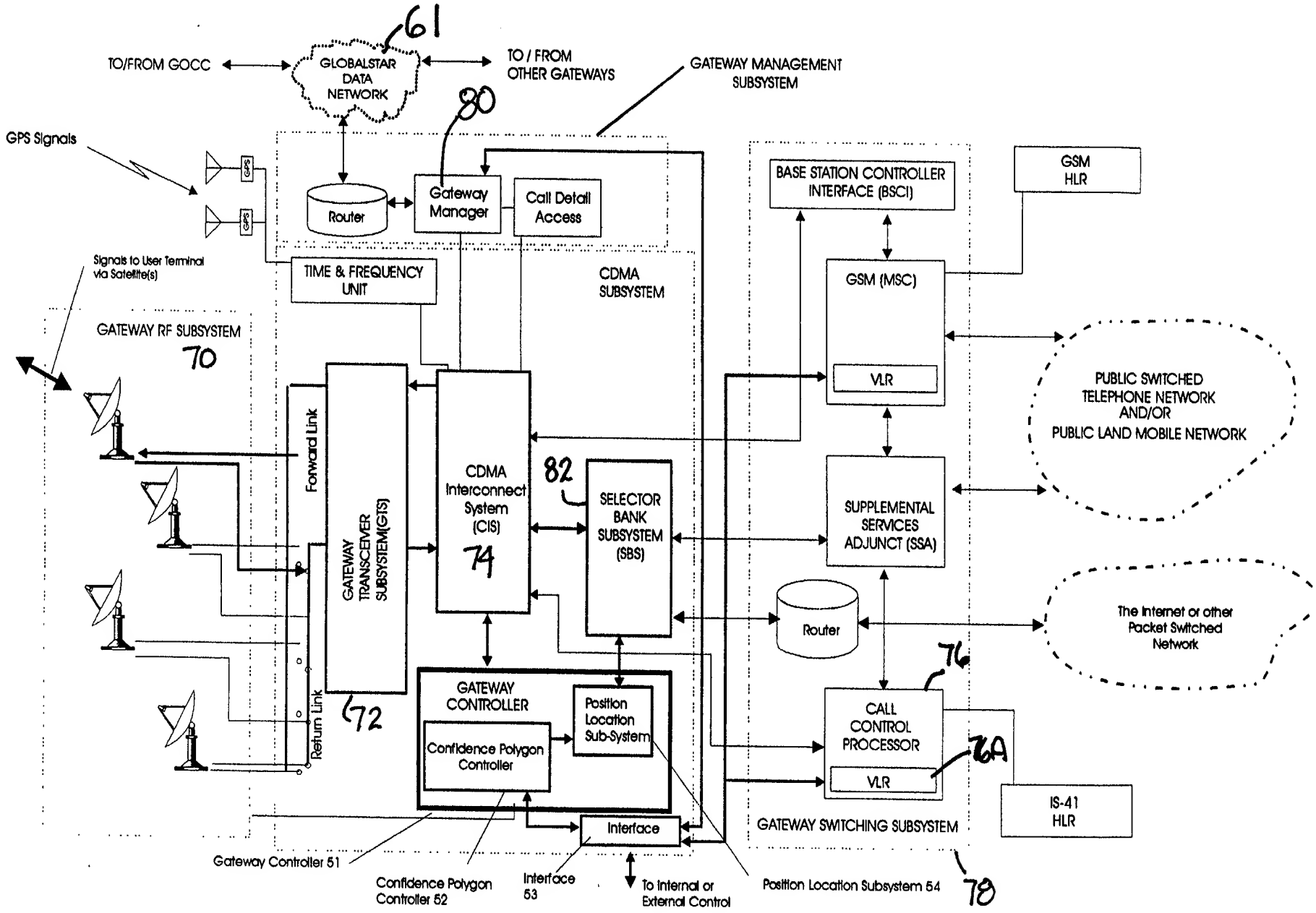

Gateway 1
GW
GW
GW
GW
GW
Ground
Data
Network 61
Storage
67
Planning Consoles 64
Network
Local Area
Network 63
68
Servers
Confidence
Controller
Network
Operations
Control 65
Operations
Confidence Polygon
(or Volume or Sheet)
Controller 66
Centralized Confidence
Control System 60
Ground Operations Control Center 62

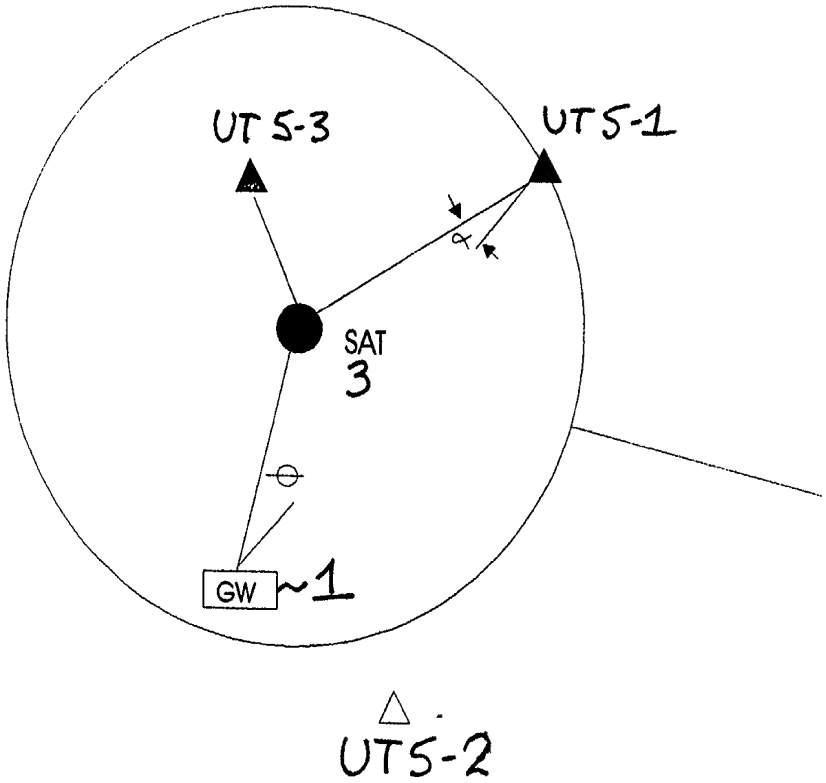
Figure 6

Gateway Sub System



0052375 5/7 52/60

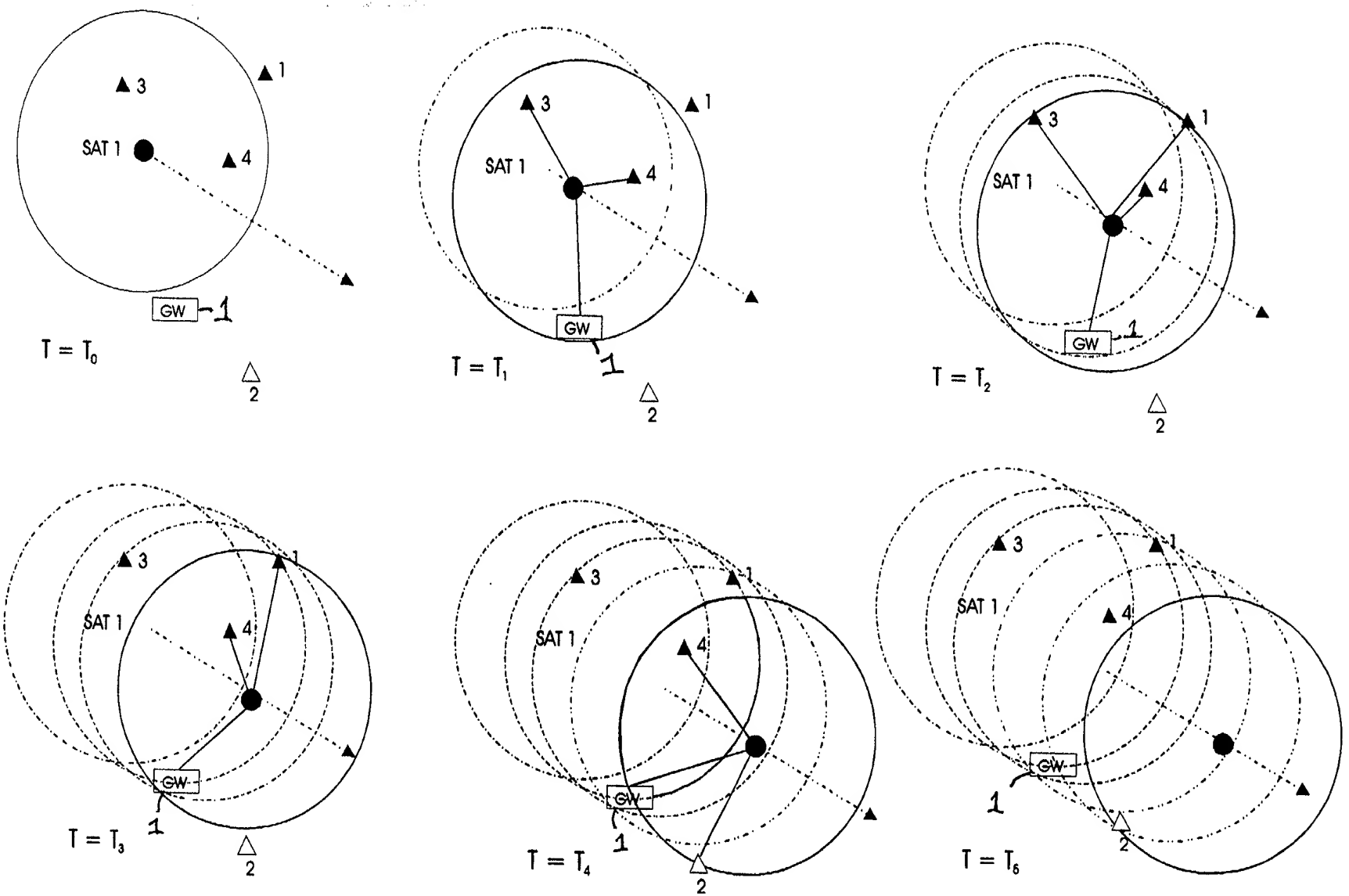
FIG. 7




The instantaneous Co-Visibility contour, the locus of points able to be served by the gateway at $t=t_0$ through satellite 3

006237 "59275268

FIG. 8



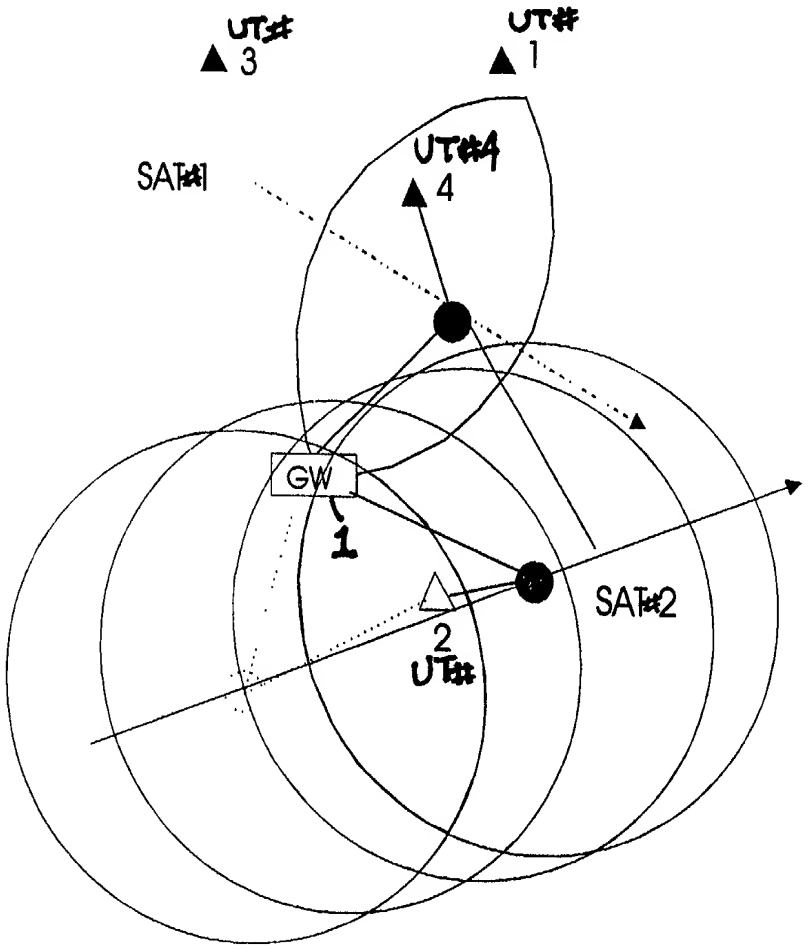



FIG. 9A

Path of the Coveage of Satellite 2 during the period t= t1 to t4

Fixed Region on Earth where during t1 to t2 User Terminals may communicate to the Gateway 100% of the Time via Satellites #1 and #2

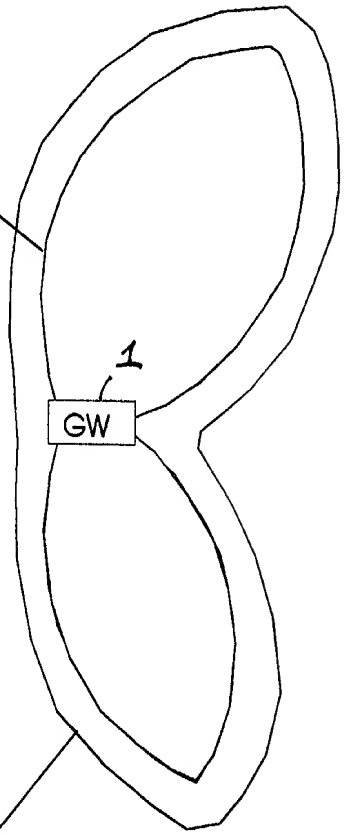
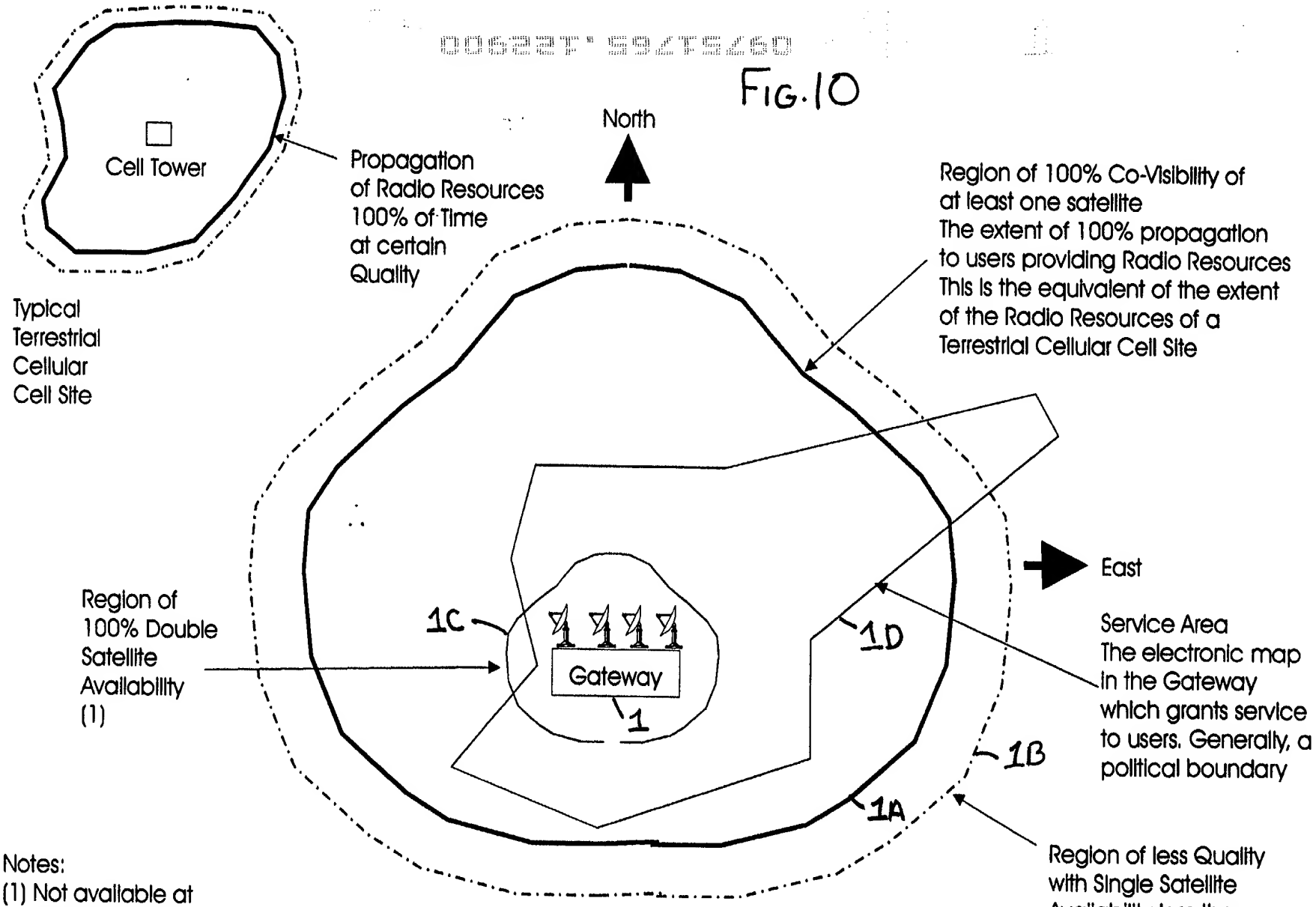



FIG. 9B

Fixed Region on Earth where during t1 to t2 User Terminals may communicate to the Gateway 95% of the time

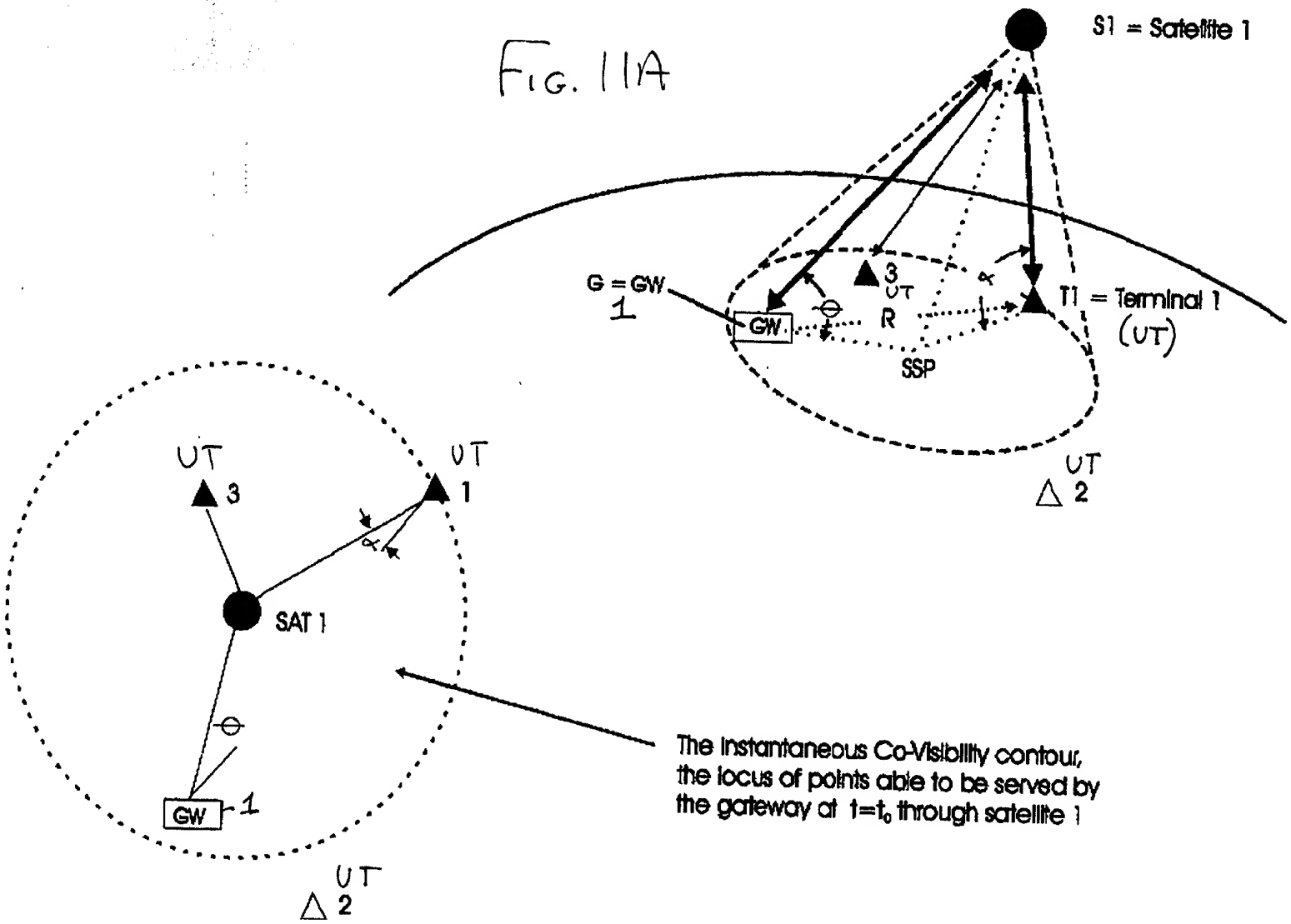
FIG. 10




Typical Co-Visibility Contour Plot for Northern Latitude Gateway
Using the GLOBALSTAR constellation

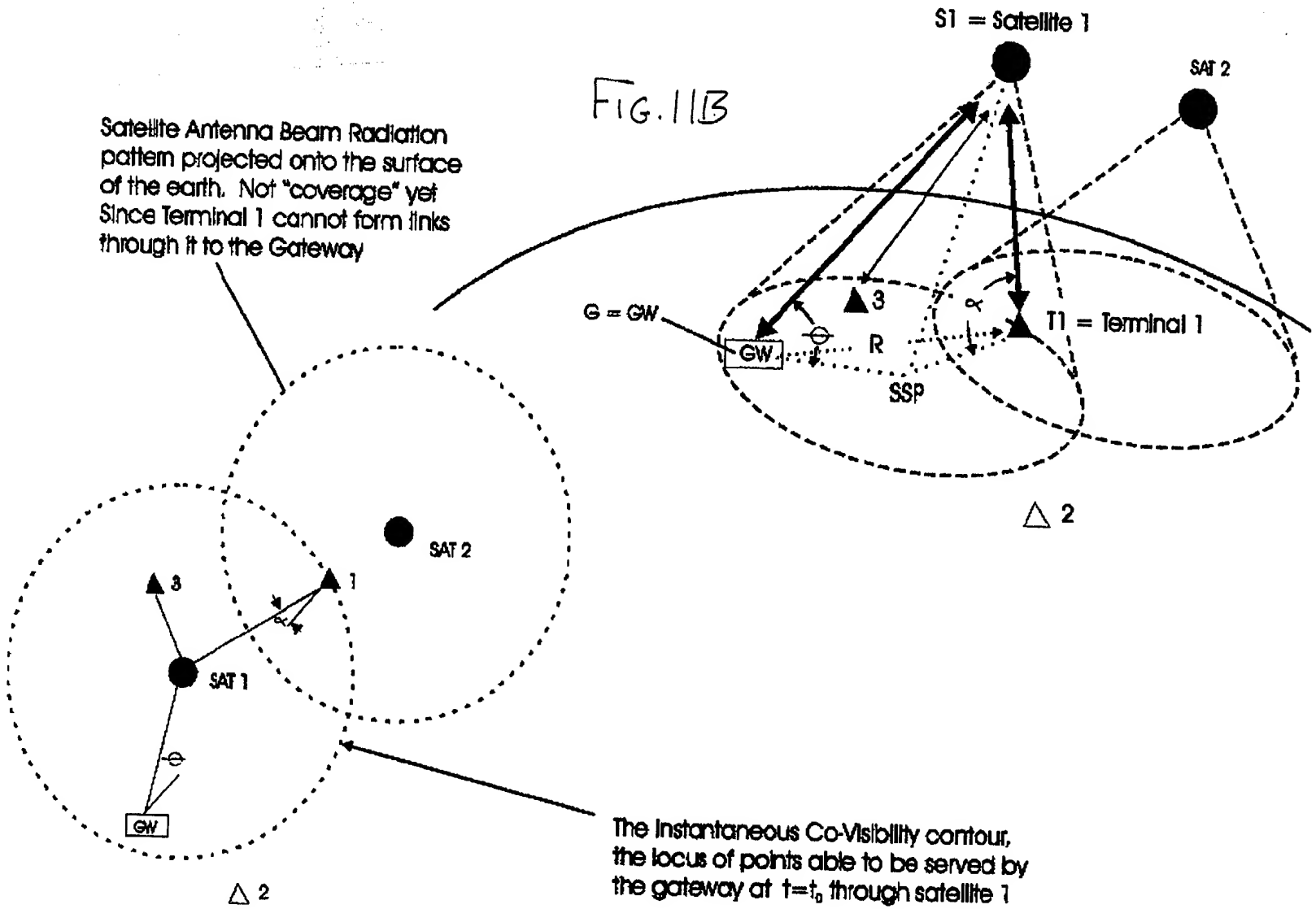
0063375 5/7 5/60

FIG. 11A



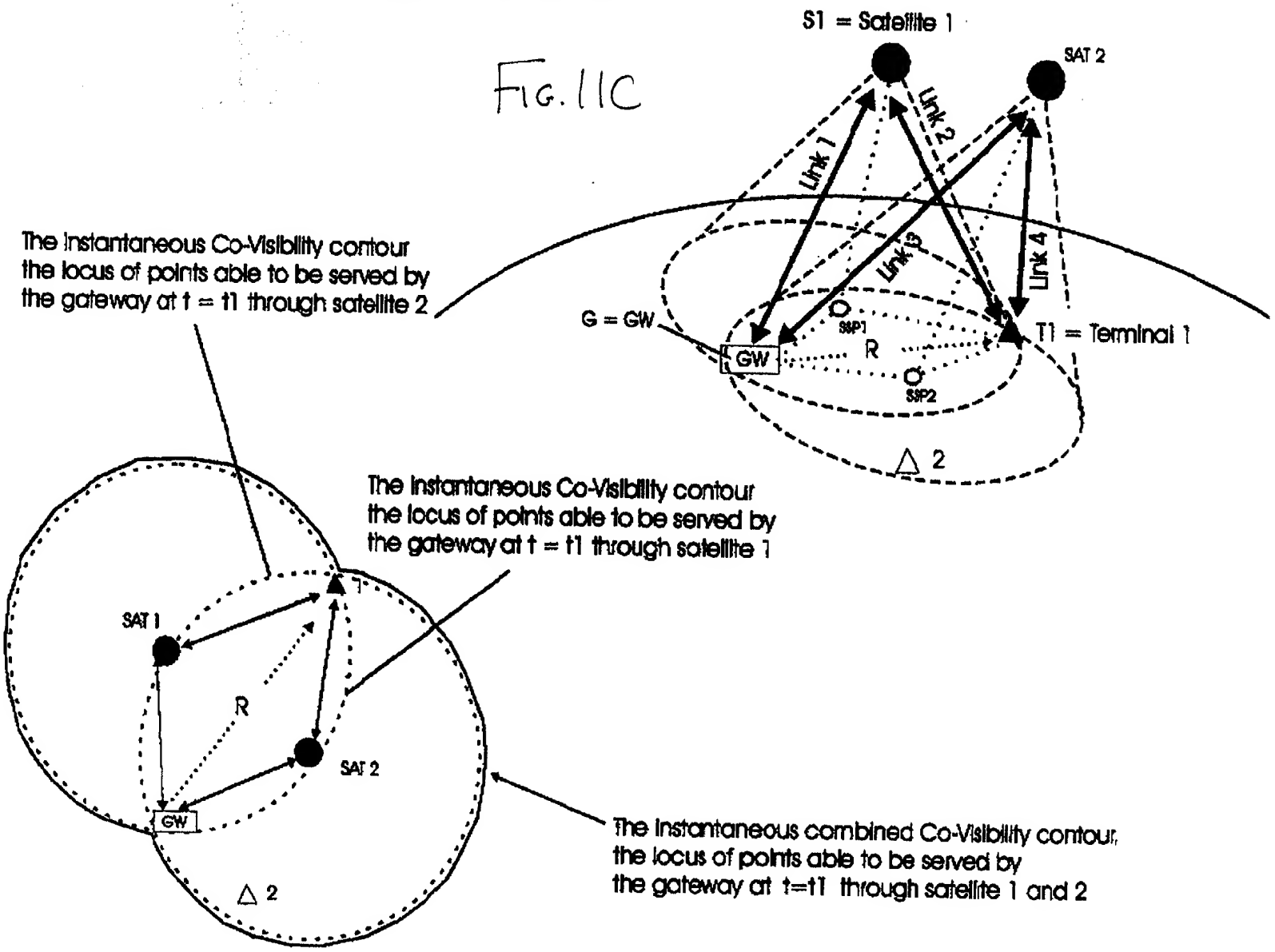
DOCSAT' 98ZT5260

FIG. 11B



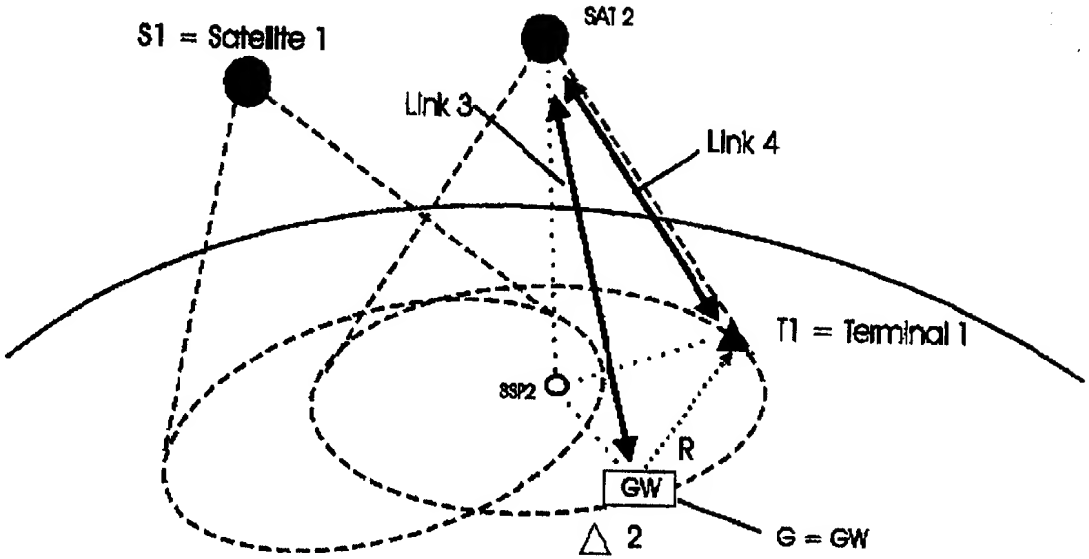
00627 "9275260

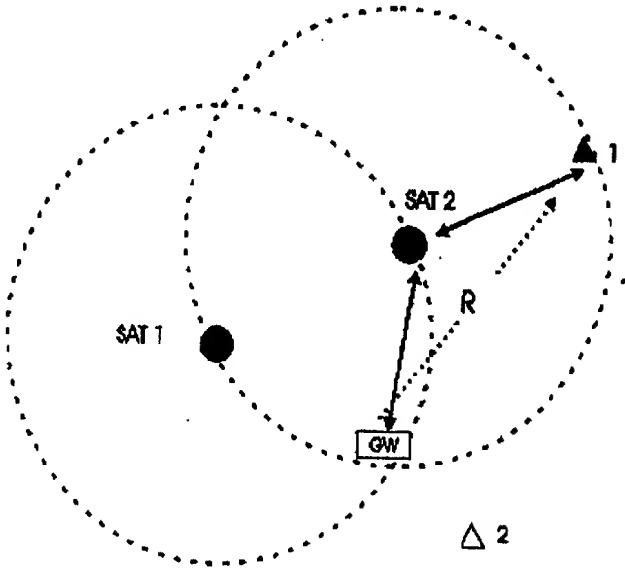
Fig. 11C



0063ST 09/752,650

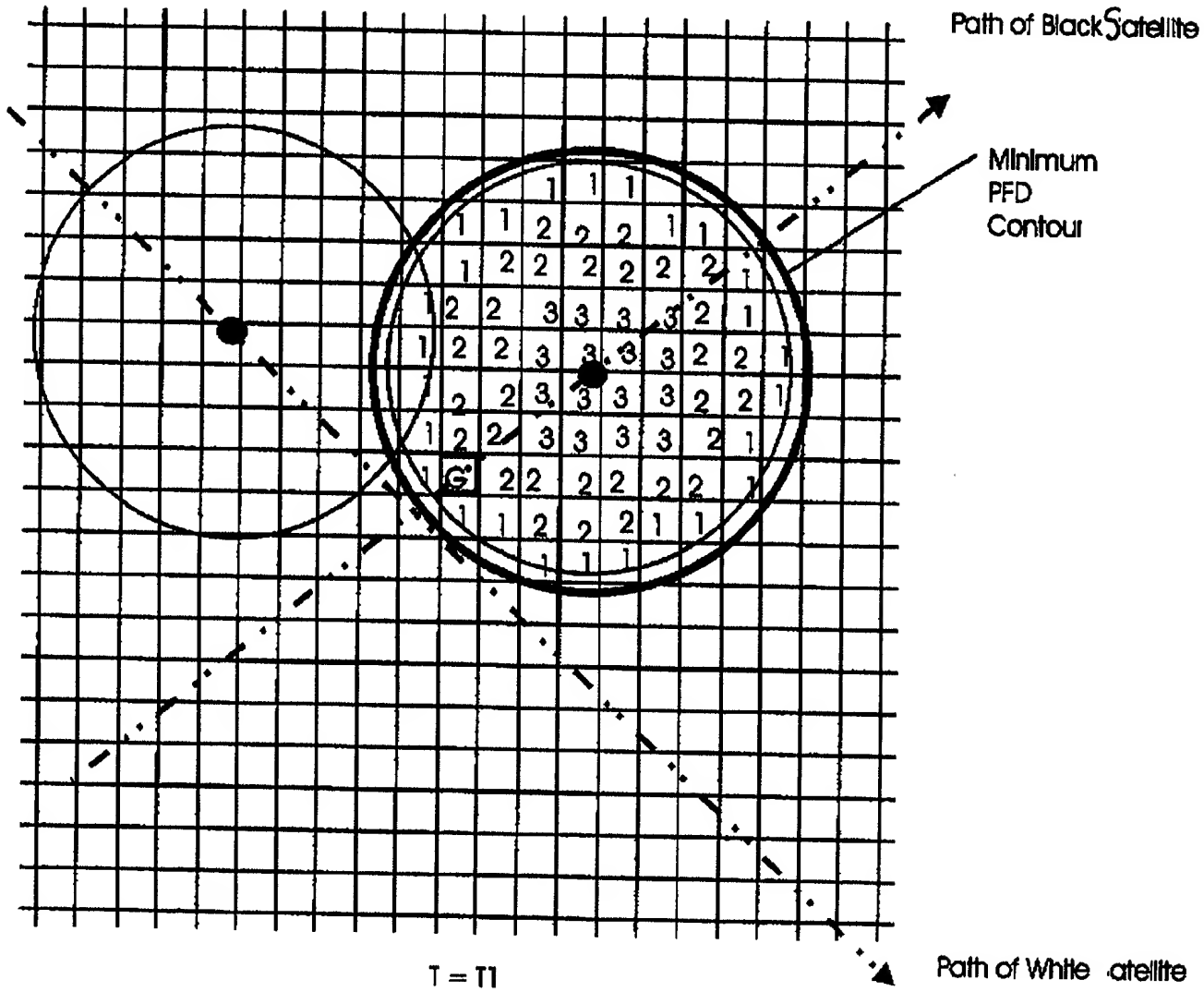
FIG. 11D



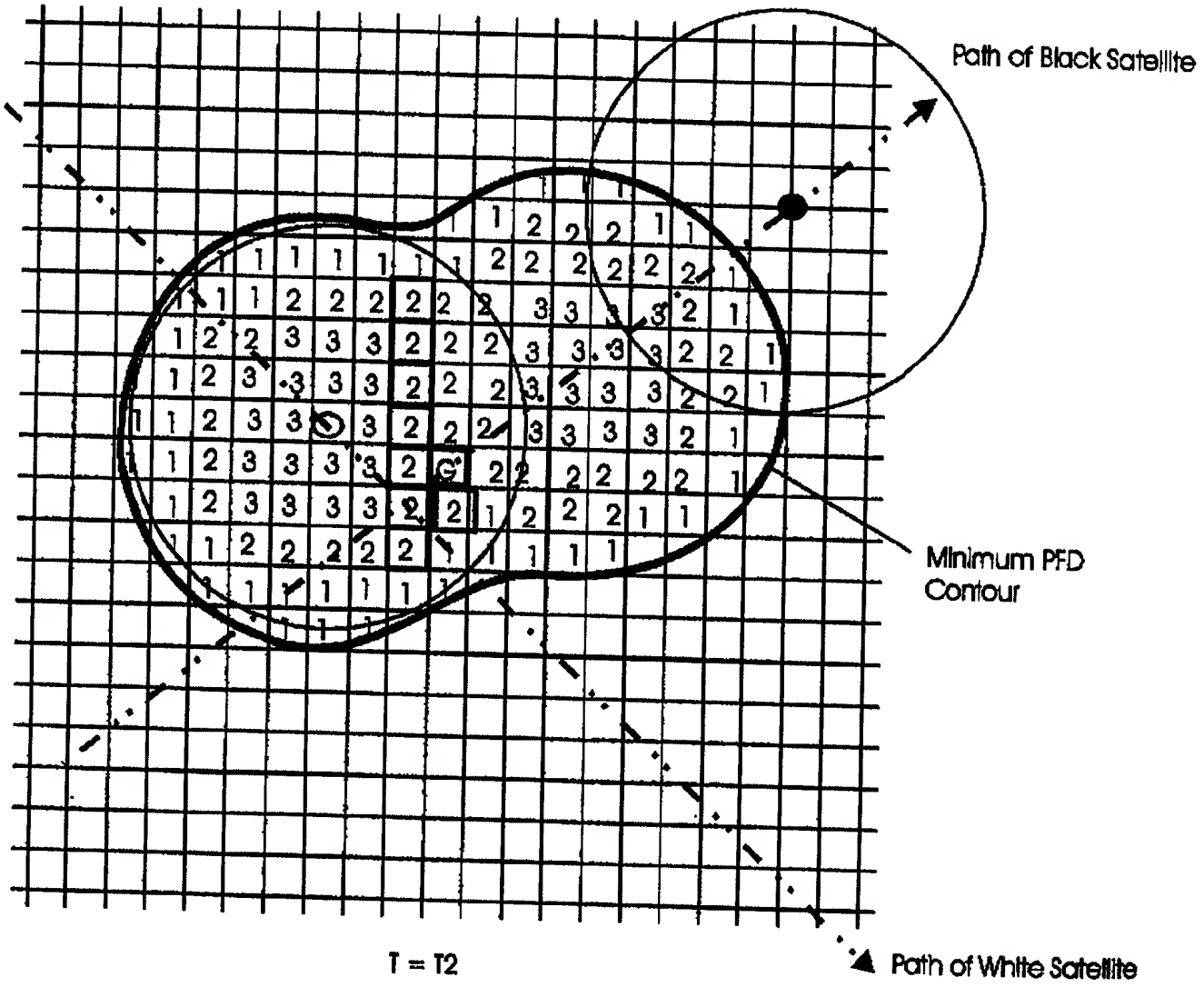

The instantaneous Co-Visibility contour the locus of points able to be served by the gateway at 1 = 2 through satellite 2

FIG. 11E


Path of Black Satellite
Minimum
PFD
Contour
T = T1
Path of White Satellite

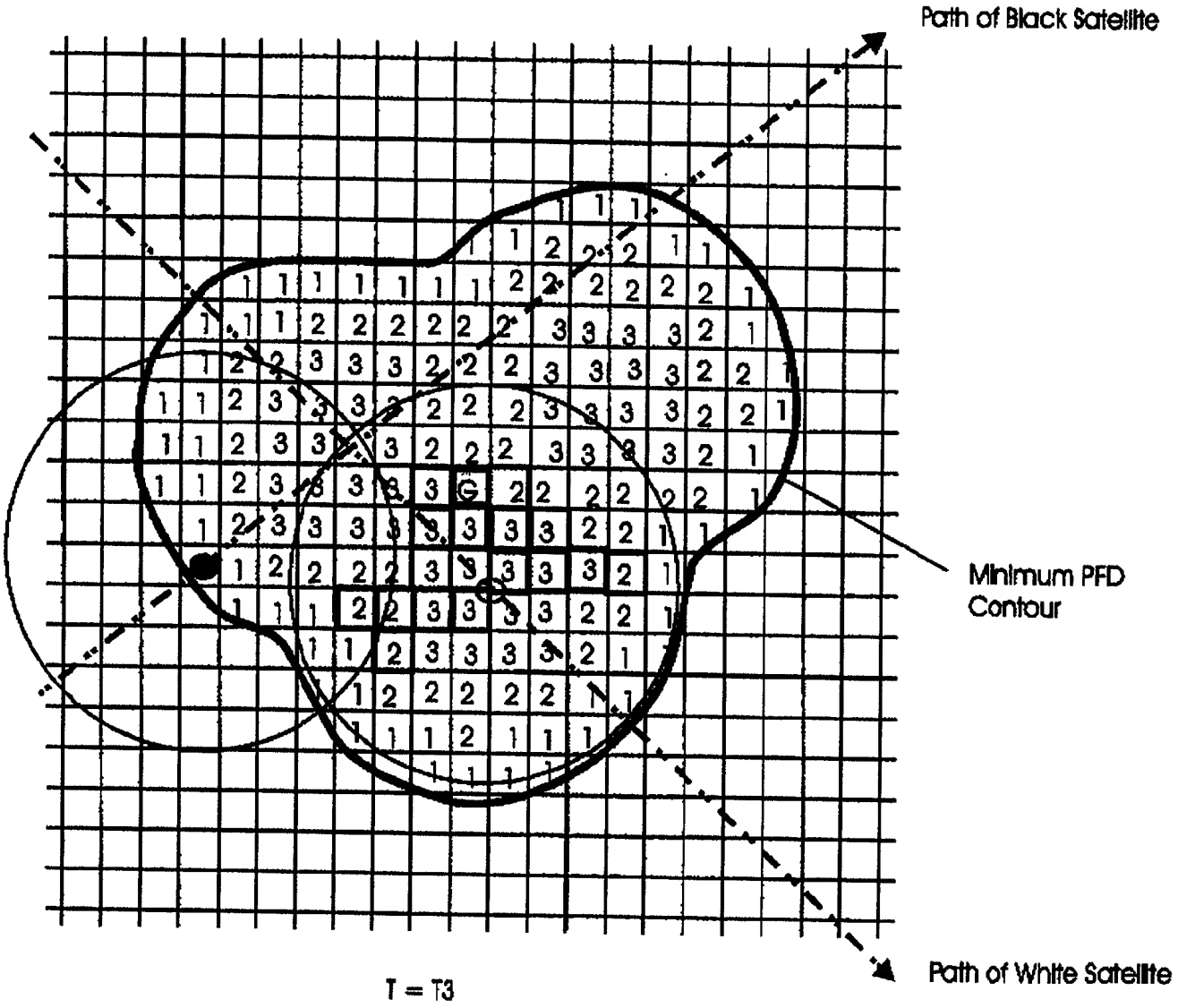
08637 "5847S260

FIG. 11F



006237 "99C7526D

FIG. 11G



0053371 "5275260

FIG. 11H

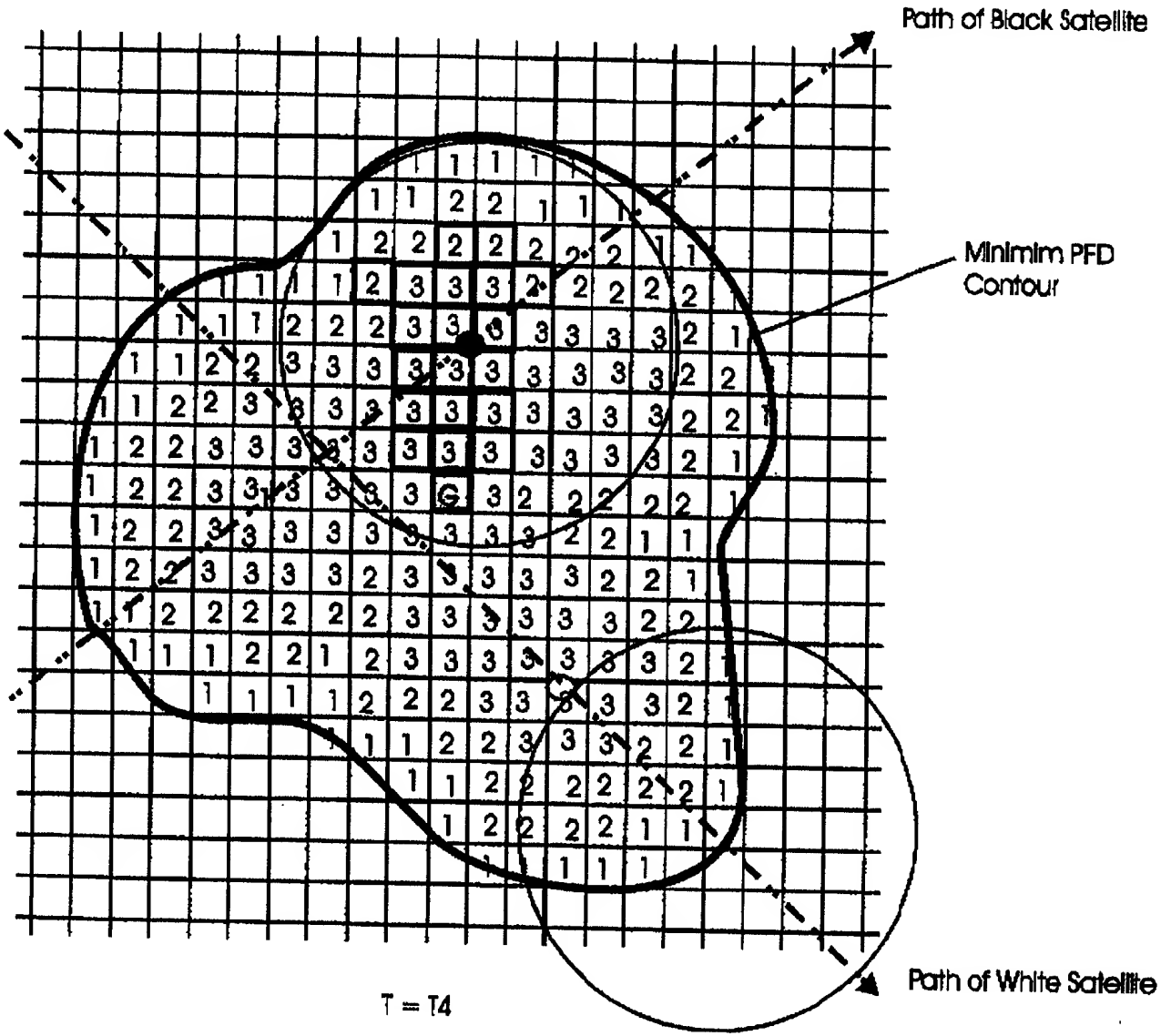
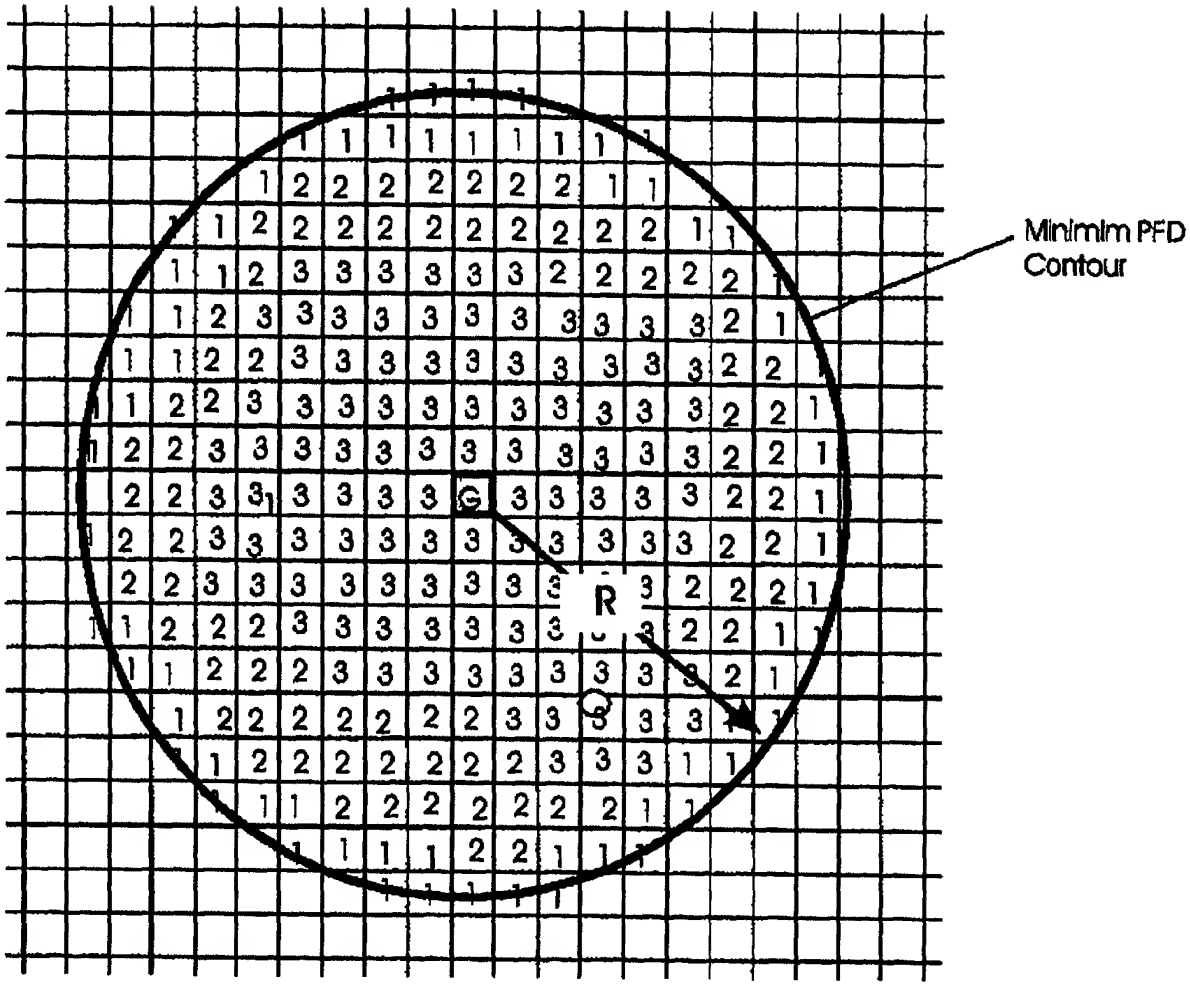



Fig. 11I